# Akshaya Athwale

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## RESEARCH INTEREST

Geometrical deep learning, Vision Transformer, Wide Angle Images, Computer Vision

## PUBLICATIONS

- A. Athwale, I. Shili, Émile Bergeron, O. Ahmad, J.-F. Lalonde:
  - "DarSwin-Unet: Distortion Aware Encoder-Decoder Architecture". **IEEE Winter Conference on Applications of Computer Vision (WACV) 2025**.

- A. Athwale, A. Afrasiyabi, J. Lague, I. Shili, O. Ahmad, J.-F. Lalonde:
  - "DarSwin: Distortion Aware Radial Swin Transformer". In **IEEE International Conference on Computer Vision, ICCV 2023**.

- S. Sengupta, A. Athwale, T. Gulati, V. Lakshminarayanan:
  - "FunSyn-Net: Enhanced Residual Variational Auto-encoder and Image-to-Image Translation Network for Fundus Image Synthesis". in **SPIE Medical Imaging Conference 2020**.

- Y. Hold-Geoffroy, A. Athwale, J.-F. Lalonde:
  - "Deep Sky Modeling for Single Image Outdoor Lighting Estimation". In **IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2019**.

## EDUCATION

| | |
|---|---|
| **Université Laval** | **Quebec, Canada** |
| *Doctorate Candidate* | **2021 - Present** |
| **Aalto University** | **Espoo, Finland** |
| *Research Assistant/Project Employee* | **2020 - 2021** |
| **Indian Institute of Technology (IIT-ISM) Dhanbad** | **Dhanbad, India** |
| *Integrated Master of Technology in Mathematics and Computing GPA: 8.85/10.0* | **2015 - 2020** |

## RESEARCH EXPERIENCE

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|---|---|
| **Research intern, Thales digital solution** | **Montréal, Canada** |
| *Supervised By : Ola Ahmad, June'23 - October'23* | |
| **Graduate Research Assistant, Université Laval** | **Quebec City, Canada** |
| *Supervised By : Prof. Jean-Francois Lalonde and Ola Ahmad, August'21 - Present* | |
| **Research Assistant/Project Employee, Aalto University** | **Espoo, Finland** |
| *Supervised By : Prof. Alexander Ilin, May'20 - August'21* | |
| **Research Internship, University of Waterloo** | **Waterloo, Canada** |
| *Supervised By : Prof. Vasudevan Lakshminarayanan, May'19 - July'19* | |
| **Mitacs Globalink Research Internship, University Laval** | **Quebec City, Canada** |
| *Supervised By : Prof. Jean-Francois Lalonde, May'18 - December'18* | |
| **Machine Learning Engineer, Arya.ai, Lithasa Technologies** | **Mumbai, India** |
| *Supervised By : Deekshith Marla, May'17 - July'17* | |

## REFERENCES

- **Prof. J. F. Lalonde:** Professor, Department of Electrical and Computer Engineering, University Laval, jflalonde@gel.ulaval.ca

- **Ola Ahmad:** Chief AI Scientist at Thales Canada, ola.ahmad@thalesdigital.io

- **Prof. Alexander Ilin:** Professor, Computer Engineering, Aalto University, +358415014497, alexander.ilin@aalto.fi

- **Prof. Vasudevan Lakshminarayanan:** Professor, Electrical and Computer Engineering, University of Waterloo, vengulak@uwaterloo.ca

- **Deekshith Marla:** Founder & CTO (Featured in Forbes 30 Under 30), Lithasa Technology, Arya.ai, deekshith@arya.ai